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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/961,092	09/24/2001	Jianming Ye	9351-75	5987

1059 7590 09/28/2004

BERESKIN AND PARR  
SCOTIA PLAZA  
40 KING STREET WEST-SUITE 4000 BOX 401  
TORONTO, ON M5H 3Y2  
CANADA

EXAMINER

KRISHNAMURTHY, RAMESH

ART UNIT PAPER NUMBER

3753

DATE MAILED: 09/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/961,092

Applicant(s)

YE ET AL.

Examiner

Ramesh Krishnamurthy

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 15 September 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 13 - 23 & 27 - 34 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 13 - 23 & 27 - 31 is/are rejected.
- 7) ☒ Claim(s) 32-34 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

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This office action is responsive to communications filed 09/15/04.

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 09/15/04 has been entered.

**Claims 13 – 23 and 27 – 34 are pending.**

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 12 – 18 and 27 – 31 are rejected under 35 U.S.C. 102(b) as being anticipated by WO 00/36482.

The document WO 00/36482 discloses (Fig.2, for example) a back pressure valve, comprising: (a) a first housing including a first chamber formed therein having an inlet (2) and a fluid outlet (5) for a first fluid; (b) a second housing including a second chamber (21) formed therein, (c) a flexible diaphragm (10) having an outer peripheral edge portion abutting the second housing and closing off the second chamber, (d) a back pressure member (15) moveably disposed in the first chamber of the first housing for controlling fluid flow between the fluid inlet and the fluid outlet, wherein the first chamber is defined by the first

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housing and the back pressure member, wherein the flexible diaphragm is fixed onto and moveable together with the back pressure member, whereby pressure in the second chamber determines fluid pressure required to maintain the back pressure member in a steady position, and (e) a reference inlet (22) and a reference outlet (23), for a reference fluid, provided in the second housing, and a control valve means (26, 27, 31) in the second housing connected to the reference inlet and the reference outlet, for controlling the pressure in at least part of the second housing applied to the flexible diaphragm and the back pressure member.

A pressure controlling device (31) that includes a processor is connected to the control valve means. A pressure transducer (3) is disposed downstream of the outlet (5). The control valve means comprises a reference inlet valve (26) and a reference outlet valve (27) controlling the flow into and out of the chamber (21) respectively. The second housing is taken here to include reference inlet and outlet valves shown mounted thereto.

Regarding claim 28 - 30, it is noted that a third chamber (7) in fluid communication with the first chamber via a bore within the first housing and having a second connector that is integral to the first housing and providing communication between the first and third chambers via first and second connectors wherein the first connector is integral with the first chamber.

Regarding claim 31, it is noted that the portion of the back pressure member (15) disposed within the sleeve defining the element (2) is taken here to be the valve plug.

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4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 19 – 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 00/36482 as applied to claims 12 – 18 and 28 – 31 above, and further in view of Uehara et al. (US 6,305,401).

The document WO 00/36482 discloses the claimed invention with the exception of explicitly disclosing the reference inlet and outlet valves to be mounted on a member that comprises a gas dome.

Uehara et al. discloses (Fig. 1) a back pressure valve comprising reference inlet valve (31) and a reference outlet valve (32) that are mounted in a

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gas dome and mounted on a end wall of the second housing (that has the second chamber (26a)) for the purpose of providing a self-contained valve assembly.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided in the device of WO 00/36482, a member comprising a gas dome in which are mounted reference inlet and outlet valves, for the purpose of providing a self-contained valve assembly, as recognized by Uehara et al..

It is also noted that Uehara et al. discloses a through hole (that communicates the second chamber (26a) with the reference inlet and outlet valves) wherein the gas dome is mounted so as to close off the through hole.

Regarding claim 22, it is noted that Uehara et al. discloses (Fig. 1) a flange portion, around the internal hollow portion, in the gas dome abutting the end wall of the second housing, the end wall and the flange portion each include at least one hole permitting reference gas to flow from the reference gas inlet to the reference inlet valve (31), the flange portion includes at least one hole permitting the reference gas to flow from the reference inlet valve to the interior of the gas dome (at 26a) and at least one hole permitting the reference gas to flow out from the interior of the gas dome to the reference outlet valve (32), and the flange and the flange portion each include at least one hole permitting the reference gas to flow from the reference gas outlet valve to the reference gas outlet.

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7. Claims 32 – 34 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. This is a continuation of applicant's earlier application. All claims are drawn to the same invention claimed in the earlier application and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the earlier application. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action in this case. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no, however, event will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

#### ***Response to Arguments***

9. Applicant's arguments filed 09/15/04 have been fully considered but they are not persuasive.

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Applicant's characterization of the examiner's position concerning the location of the reference inlet and exhaust valves is not convincing. Examiner's interpretation of this limitation is consistent with applicant's own characterization of the positional relationship of the reference inlet and exhaust valves with respect to the second housing as recited in claim 18. Indeed, it could be argued that limitation in claim 18 is inconsistent with that in claim 13 in that control valve means is not really in the second housing but merely mounted on the second housing. As for the arguments concerning the outlet of the first chamber being **an** (emphasis added) outlet of the back pressure valve, it is noted that the outlet (5) of the inlet chamber is indeed an outlet of the back pressure valve since any fluid passing through the valve has to exit the first chamber via the outlet (5). Chrompak does disclose (figs. 1 and 2) a sleeve member disposed in the first chamber. The examiner is taking the first chamber to be bounded by the diaphragm (10) and having the inlet (2) and the outlet (5).

In regard to the UEHARA reference, Fig.1 in UEHARA clearly shows the gas dome (26a) to be mounted on an end wall of the second housing that is bounded on the lower side by the diaphragm (25) with at least one hole that communicates with the reference inlet valve and outlet valves (36, 37).

Thus the rejection set forth above is indeed proper and is made FINAL.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ramesh Krishnamurthy whose telephone number is (703) 305 - 5295. The examiner can normally be reached on Monday - Friday from 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A. Scherbel, can be reached on (703) 308 - 1272.

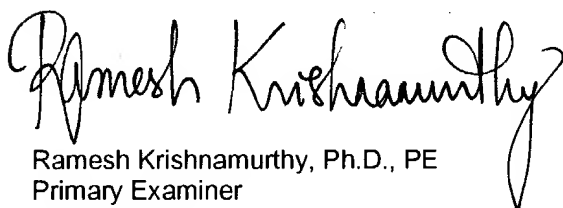


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The fax phone number for the organization where this application or proceeding is assigned is (703) 872 - 9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308 - 0861.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Ramesh Krishnamurthy, Ph.D., PE  
Primary Examiner  
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